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STRATEGY RESEARCH PROJECT

RISK AND THE NATIONAL DEFENSE STRATEGY

BY

LIEUTENANT COLONEL WALLY WININGER United States Army

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by

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Infantry

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The views expressed in this academic research paper are those of the author and do not necessarily reflect the official policy or position of the U.S. Government, the Department of Defense, or any of its agencies.

U.S. Army War College CARLISLE BARRACKS, PENNSYLVANIA 17013

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ABSTRACT

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Risk was introduced as a concept to be reported on in the Quadrennial Defense Review (QDR) 1997 legislation. Risk was discussed in the subsequent Report of the Quadrennial Defense Review, but only in very broad terms. QDR 01 legislation mandates that risk be assessed in relationship to the full range of missions in the national defense strategy. The legislation requires that risk be low to moderate and defined in terms of nature, magnitude, and by political, strategic, and military components. While the legislation directs the Secretary of Defense to conduct this risk assessment in consultation with the Chairman of the Joint Chiefs of Staff (CJCS), the Chief of Staff of the Army, as a member of the Joint Chiefs of Staff, must help develop the assessment process and product. This paper recommends how the Army should define and assess the nature and magnitude of the political, strategic, and military risks associated with executing the missions called for under the national defense strategy. The paper concludes with a proposed risk assessment methodology that can serve as the Army's contribution in assisting the CJCS meet the legislative requirement.

TABLE OF CONTENTS

ABSTRACT	
TABLE OF CONTENTS	V
ACKNOWLEDGEMENTS	vii
LIST OF ILLUSTRATIONS	ix
RISK AND THE NATIONAL DEFENSE STRATEGY	1
INTRODUCTION	
DEFINE THE NATURE AND MAGNITUDE	2
DEFINE THE NATURE AND MAGNITUDE	
MISSIONS CALLED FOR UNDER THE NATIONAL DEFENSE STRATEGY	4
STRATEGY	4
RISK	7
STRATEGIC RISK	9
POLITICAL RISK	13
MILITARY RISK	15
THE CURRENT RISK MAGNITUDE MEASUREMENTS	
RISK ASSESSMENT OPTIONS	
THE CURRENT RISK ASSESSMENT METHOD	21
CONCLUSIONS	22
RECOMMENDATIONS	23
ENDNOTES	27
BIBLIOGRAPHY	33

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LIST OF ILLUSTRATIONS

FIGURE 1.	THE ENDS, WAYS, MEANS RELATIONSHIP	5
	ENDS, WAYS, MEANS & RISK	
FIGURE 3.	ENDS, WAYS, MEANS, RISK RELATIONSHIP	9
FIGURE 4.	NATIONAL SECURITY STRATEGIC RISK RELATIONSHIP	.11
FIGURE 5.	STRATEGIC RELATIONSHIPS	.12
FIGURE 6.	STRATEGIC RISK AND THE MILITARY INSTRUMENT OF NATIONAL POWER	.12
FIGURE 7.	POLITICAL RISK RELATIONSHIPS	.15
FIGURE 8.	MILITARY RISK RELATIONSHIPS	.17
FIGURE 9.	RISK MATRIX	.25

X

INTRODUCTION

"One of the things that I think has disturbed some of us on this Committee for a long time and we have been wrestling with it within the Department of Defense, is this question of whether or not we have the size force and the capability of carrying out the national strategy of fighting two major theater wars at the same time. And over a period of time it has developed into questioning our leaders of our military, it started off them saying, well, yeah, you know, we can do this. It might entail some **risk**, but we can do it. And then you get on down in the detail and you ask, well, what kind of risk are we talking about? And they would say, well, moderate risk. And you start asking why, and they say, well, you know...

And, finally, the most recent assessment has gone from moderate to high, high risk now. And so my question is, why are we in that situation? Have we reduced our force too much, capabilities not there? What is it that leaves us in this place? What can we do? I don't want us to assume any kind of risk. I know it is impossible to look at it that way, but the less risk, as far as I'm concerned, the better (emphasis added)"¹

—Floyd D. Spence, Chairman House Committee on Armed Services 8 Feb 2000

Since the end of the Cold War there have been four comprehensive reviews of the United States military. These reviews were the 1991 Base Force Review, the 1993 Bottom-Up Review, the 1995 Commission on Roles and Missions of the Armed Forces, and the 1997 Quadrennial Defense Review (QDR). The evaluation of risk, in broad terms, played a role in each of these reviews.

The Military Force Structure Act of 1996, Public Law 104-201, required QDR 97. QDR 97 recognized the Secretary of the Defense's endorsement of the concept of conducting a quadrennial review of the defense program at the beginning of each newly elected presidential administration. As part of the 97 QDR report, "the assumptions used in the review, including assumptions relating to the cooperation of allies and mission sharing, levels of acceptable risk, warning times, and intensity and duration of conflict" were to be included.

The National Defense Authorization Act of 2000, Public Law 106-65, directed a second QDR to be completed in 2001 and made the review a permanent requirement. This legislation states, "The Secretary of Defense shall every four years, during a year evenly divisible by four, conduct a comprehensive examination (to be known as a "quadrennial defense review") of the national defense strategy..." Thus, Chapter 2 of Title 10, United States Code had been amended by the 106th Congress. Congress amended the code by adding section 118. Section 118 (b) (3) states,

"to identify (A) the budget plan that would be required to provide sufficient resources to execute successfully the full range of missions called for in that national defense strategy at a low-to-moderate level of risk, and (B) any additional resources (beyond those programmed in the current future-years defense program) required to achieve such a level of risk.

(c) ASSESSMENT OF RISK—The assessment of risk for the purposes of subsection (b) shall be undertaken by the Secretary of Defense in consultation with the Chairman of the Joint Chiefs of Staff. That assessment shall define the nature and magnitude of the political, strategic, and military risks associated with executing the missions called for under the national defense strategy (emphasis added)."⁴

This portion of the legislation highlights Congress' interest in understanding just what risk is and how much risk truly exists. The remarks by Representative Spence on quoted above during testimony before the House Armed Services Committee illustrates congressional frustration over the risk assessments provided by the U.S. Armed Forces.

Risk was first introduced as a concept to be specifically reported on in the QDR 97 legislation. Risk was discussed in the subsequent Report of the Quadrennial Defense Review (May 1997), but only in very broad terms. QDR 01 legislation communicated Congressional frustration with the concept of risk and introduced much more specific guidance on risk assessment. The legislation requires that risk be assessed in relationship to the full range of missions in the national defense strategy. The legislation mandates that risk should be low to moderate and defined in terms of nature, magnitude, and by components, which include political, strategic, and military. While the legislation directs the Secretary of Defense to conduct this risk assessment in consultation with the CJCS, the Chief of Staff of the Army as a member of the Joint Chiefs of Staff, must help develop this assessment process and product. The purpose of this paper; therefore, is to recommend how the Army should define and assess the nature and magnitude of the political, strategic, and military risks associated with executing the missions called for under the national defense strategy.

In the balance of this paper, I will accomplish this task through a series of logical steps. First, I will define and discuss "nature" and "magnitude." Next, I will analyze the national defense strategy as it relates to the legislation. This will be followed by a general strategy discussion to select a strategy model for the purpose of this paper. The next steps in the analysis include a general risk discussion, which then focuses specifically on political, strategic, and military risks. Then I will introduce and analyze various methods currently used to conduct risk assessments. This will lead to the proposal of a risk assessment methodology that can be used to develop the Army's contribution to meeting the requirement of the legislation.

...DEFINE THE NATURE AND MAGNITUDE...

The Merriam-Webster Dictionary defines nature as, "the peculiar quality or basic constitution of a person or thing." The nature of risk would then be what it is, or looked at another way, the things taken together that comprise risk. The QDR 2001 legislation directs that the components

of risk be broken down into the broad categories of political, strategic, and military. A review of the legislative history failed to reveal the reasons why congress picked these particular risk components. But, because they are directed, it is in these three categories that the nature of risk is defined and analyzed in this paper. All three categories of risk specified in the legislation taken together yield the total size or extent of risk. Political, strategic, and military aspects of risk must ultimately be examined simultaneously because they are interrelated as they support the national defense strategy. The total risk associated with executing the missions called for under the national defense strategy equals a combination of the political, strategic, and military risk, which must be determined.

The temporal aspect of risk must be included as part of the nature analysis. Risk will change over time and is influenced by actions that have occurred in the past. Any risk assessment will only provide a "snapshot in time" unless part of the nature analysis captures more than one frame of reference. To capture its temporal nature, risk should be evaluated in the near, mid, and long term. For the Army, near is defined as out to six years, mid equals six to sixteen years, and long term equals sixteen to twenty-five years⁶. These time references match those used in The Army Plan and the time planning horizons used by the Army.

To complete the temporal analysis, past (last administration) risk evaluations must be included in the overall assessment to identify how and determine why risk has changed over time. By including this aspect, the analysis considers a past as well as three future data points. These four data points taken together provide an excellent time reference to capture the temporal aspect of the nature of risk.

...DEFINE THE NATURE AND MAGNITUDE...

The Merriam-Webster Dictionary defines magnitude as, "greatness of size or extent." The magnitude of risk would then be the size, degree, or level. A framework for risk measurement is provided in the QDR legislation. This metric includes low and moderate as part of the measurement scale. Currently within the Department of Defense, risk has been quantified using these two terms together with "high" and "no risk" to complete the magnitude scale. These four points on the scale; no risk, low, moderate, and high make up the lexicon of current risk assessment. An example of risk being discussed in these terms was in the House Committee on Armed Services testimony on the adequacy of the defense budget on February 8, 2000 when Representative Floyd D. Spence talked in terms of "moderate and high" risk. A recent example of risk being quantified in the terms low, moderate and high was on 27 September 2000 in Joint Chiefs of Staff testimony before the House and Senate Armed Services

Committees on U.S. military readiness. In this testimony, risk was also discussed in terms of "very high," "significant," and "tremendous". This testimony by the Joint Chiefs of Staff hints that the metric of no, low, moderate, and high risk may be inadequate, and that a further distinction should be made to add needed clarity to future risk assessments.

...MISSIONS CALLED FOR UNDER THE NATIONAL DEFENSE STRATEGY.

"The Department of Defense laid out the national defense strategy and resultant defense program in the 1997 Report of the Quadrennial Defense Review (QDR). This strategy supports the President's National Security Strategy. It also supports the National Military Strategy which states, "to defend and protect US national interests, our national military objectives are to promote peace and stability and, when necessary, to defeat adversaries." The national defense strategy directs the Defense Department to help shape the international security environment in ways favorable to U.S. interests, respond to the full spectrum of crises when directed, and prepare now to meet the challenges of an uncertain future. These three elements-shaping, responding, and preparing-define the essence of the U.S. national defense strategy between now and 2015. The national defense strategy is primarily focused on the military instrument of national power but supports the national security strategy of the United States, which strives to integrate all instruments of national power to promote and protect U.S. national interests.

STRATEGY

A general strategy model is needed to assist in the analysis of the national defense strategy and its relationship to risk. One of the definitions of strategy in the Merriam-Webster Dictionary is, "a careful plan or method especially for achieving an end." For the analysis in this paper the ends, ways, and means model of strategy analysis is selected. In this model, "Strategy equals Ends (objectives towards which one strives) plus Ways (courses of action) plus Means (instruments by which some end can be achieved)."

Relationships between ends, ways, and means are depicted in Figure 1 by the inverted three-sided pyramid. Strategy is held up by the interaction of the three elements of the strategy: ends, ways, and means. The strategy is in balance when the interaction between the three elements of the strategy is synchronized and each element exists in the correct proportion to the other two elements. Balancing the strategy is a dynamic process and requires constant reevaluation of the ends, ways, and means interaction.

Strategy = Ends + Ways + Means

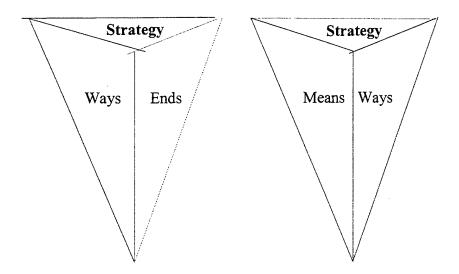


Figure 1. The Ends, Ways, Means, Relationship

In the ends, ways, means model, ends are objectives. Ends answer the question "what for" or "why" in the analysis. Objectives can be a direction or target. Objectives can be abstract or concrete depending on the level of war. "Objectives provide the focus for military action. In an abstract sense, the objective is the effect desired. This is more appropriately termed the aim or intent. In a concrete sense, the objective is the physical object of the action taken" such as a hill or an airfield.

The more specified ends in the national defense strategy are the military objectives which can be defined in terms of, "a specific mission or task to which military efforts and resources are applied.¹³ However, the national defense strategy has two broad overarching strategic ends or national objectives. These are, "to promote peace and stability and, when necessary, to defeat adversaries that threaten the United States, our interests, or our allies."¹⁴

Ways are courses of action, which lead in the direction of or toward the objective. Ways can also be described as methods or patterns of action and answer the question "how". The national defense strategy utilizes three ways to accomplish its strategic ends. "In order to support the national security strategy, the U.S. military and the Department of Defense must be able to help shape the international security environment in ways favorable to U.S. interests, respond to the full spectrum of crises when directed, and prepare now to meet the challenges of an uncertain future. These three ways—shaping, responding, and preparing—define the essence of U.S. defense strategy between now and 2015."¹⁵

Shaping the international environment is conducted in a manner that promotes and protects U.S. national interests. Shaping is accomplished by, "promoting regional stability, preventing or reducing conflicts and threats, and by deterring aggression and coercion." Ways in which the military promotes regional security include, "bolstering the security of key allies and friends, working to adapt and strengthen core alliances and coalitions, engagement to build bilateral and multilateral relationships that increase military transparency and confidence, and encouraging adherence to the international norms and regimes." Ways to prevent or reduce conflicts and threats include, "maintaining forces overseas and conducting peacetime engagement activities." Ways in which the military deters aggression and coercion include, "peacetime deployments of U.S. military forces abroad, demonstrated will and ability to uphold security commitments, credible conventional warfighting capabilities, and the U.S. nuclear posture.

Responding is accomplished by, "deterring aggression in crisis, conducting Smaller Scale Contingency (SSC) operations, and fighting and winning Major Theater Wars (MTW)."²⁰ Ways in which the military deters aggression and coercion include, "increasing the readiness levels of deployable forces, moving forces deployed in the area closer to the crisis, and deploying forces from the U.S. to the crisis area.". Ways in which the military conducts SSC operations encompass a large array of military operations that includes maintaining the capability to conduct, "show of force operations, interventions, limited strikes, noncombatant evacuation operations, no-fly zone enforcement, peace enforcement, maritime sanctions enforcement, counterterrorism operations, peacekeeping, humanitarian assistance, and disaster relief."²² The way in which the military fights and wins major theater wars is to maintain the capability of, "deterring and defeating large-scale, cross border aggression in two distant theaters in overlapping time frames, preferably in concert with regional allies."²³

Preparing now for an uncertain future is accomplished by, "pursuing a focused modernization effort, exploiting the Revolution in Military Affairs (RMA), exploiting the Revolution in Business Affairs (RBA). It also is accomplished by having "insurance policies" such as maintaining a broad research and development effort, use of Advanced Concept Technology Demonstrations, and developing new capabilities to hedge against unlikely, but significant, future threats. This provides better management of risk in a resource-constrained environment and better position the Department to respond in a timely and effective manner to new threats as they emerge."²⁴

Means are the resources or tools required to implement the ways to accomplish the ends. Means answers the question "with what?" "The basic means of military power include active strength (standing forces and operating stocks), reserve strength (reserve components, militia

and war reserve stocks), potential strength (manpower, industry, technology, infrastructure, and material mobilization base) and coalition strength (allied forces and support). Also, when looking at the ends, ways, means formula one of the means is time and it must be folded into the strategy."²⁵ Thus, the means available to support the national defense strategy are the total armed forces of the U.S. in concert with coalition partners and allies as well as the other governmental agencies of the nation. Other means available can include non-governmental agencies, private volunteer agencies, and international organizations.

RISK

For a concept which receives so much attention and discussion there is not a Department of Defense approved definition of risk in Joint Publication 1-02, <u>Department of Defense Dictionary of Military and Associated Terms</u>, as it relates to strategy at the operational and strategic level. This highlights the difficulty in attaining a consensus definition within the armed services. The <u>Merriam-Webster Dictionary</u> defines risk as, "exposure to possible loss or injury." Synonyms for risk include danger, jeopardy, hazard, peril, gamble, venture, uncertainty, and chance. The bottom line is that risk is a difficult concept to easily get your arms around. It is also a concept on which very little has been written especially at the strategic level.

Although the Department of Defense has failed to define risk there are some in the defense community who have invested considerable mental rigor into the concept. At the School for Advanced Military Studies at Fort Leavenworth, risk is discussed as a concept, which relates to the operational art. "Rational human action begins with the establishment of ends or aims. A military end is feasible if the means available can support the attainment of that end. To ensure the efficient allocation of means, under ideal circumstances, the end must be proportional to the means. This relationship is depicted at the top of Figure 2.

An end is considered suitable when its attainment will bring about a useful effect. The issue of suitability also plays another important role with respect to the manner in which the end is to be achieved. Once the end has been determined, the commander must select the appropriate way or method to apply the means at hand. A suitable method will be determined by the means available in relation to the end sought." Here again an ends, ways, means relationship has been established.²⁸

"Considerations regarding the consequences of defeat lead to the assessment of risk. In instances when the means do not support the ends, as is often the case, the careful selection of appropriate operational methods can offset some of this shortfall in combat power. This gives rise to the relationship between risk and friction, where friction is chance + uncertainty. We said

that under ideal circumstances we allocate sufficient means to accomplish a given mission and include a certain marginal amount of combat power to overcome friction. In cases where we have a shortfall in combat power that cannot be offset by method, we will encounter a certain amount of friction that cannot be overcome. Risk is a measure of that friction which is left over. By definition risk assessment cannot plan for every frictional event. To attempt to allow for all factors of risk becomes futile and wastes valuable time and effort. Commanders must accept some level of risk – and uncertainty – and develop a plan with sufficient robustness to deal with the inevitable friction."²⁹

At the operational level then, risk is a measure of the friction (uncertainty and chance), which cannot be overcome or offset by method or way. This relationship is depicted at the bottom of Figure 2.

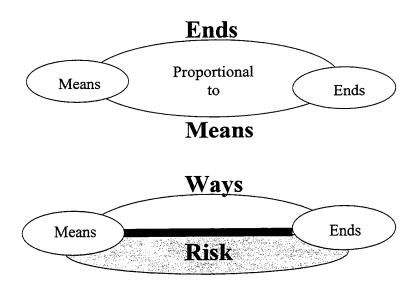
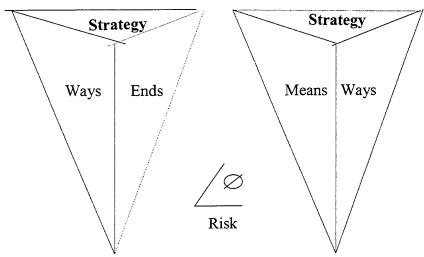


Figure 2. Ends, Ways, Means & Risk

At the Army War College risk is studied and analyzed at the strategic level. According to Arthur F. Lykke, Jr., "National Security, our most vital interest, is supported on a three-legged stool entitled Military Strategy. The three legs of the stool are labeled Objectives, Concepts, and Resources. This simple analogy leads one to the observation that the legs must be balanced, or national security may be in jeopardy. The angle of tilt represents risk, further defined as the possibility of loss or damage, or of not achieving an objective." "When one leg of the stool comes up short in the analysis, then things are out of balance. The more imbalance you incur, the higher the risk that the defense strategy is apt to topple." While Lykke's model

helps one visualize the relationship between risk and strategy it does not capture the interrelationships between ends, ways, and means already discussed. The better model is the inverted pyramid introduced earlier in this paper where the angle of tilt would represent risk. (See Figure 3)

Strategy = Ends + Ways + Means



Risk = The Imbalance in Ends, Ways, and/or Means

Figure 3 Ends, Ways, Means, Risk Relationship

Ultimately, when analyzing strategy, risk is the danger that the strategy will fail due to mismatches, inconsistencies, or imbalances between ends, ways, or means. These imbalances may occur in any combination between the three elements of the strategy or could occur within a single element. Risk will always exist. Because risk will always exist, some level of risk must always be accepted. Since some level of risk is inevitable, the more robust the means and ways, the better the chance residual risk will be minimized. With the concept of risk generally defined as it relates to strategy, it is now possible to establish what strategic, military, and political risk are as called for in the QDR legislation.

STRATEGIC RISK

Strategic risk, like risk in general, does not have an approved Department of Defense definition. However, strategic is an adjective that describes the noun strategy. This term is defined in the joint dictionary as, "the art and science of developing and using political, economic, psychological, and military forces as necessary during peace and war, to afford the maximum support to policies, in order to increase the probabilities and favorable consequences

of victory and to lessen the chance of defeat."³² The definition of the strategic level of war also gives some insight to what the term strategic means. This level is, "the level of war at which a nation determines national security objectives and guidance, and develops and uses national resources to accomplish these objectives.³³ Thus, the strategic level of war implies something of national importance linked to security. Putting these together you have a national security strategy or, "the art and science of developing, applying, and conducting the instruments of national power (diplomatic, economic, military, and informational) to achieve objectives that contribute to national security.³⁴ The U.S. has three core objectives as part of its current national security strategy. These objectives are, "to enhance America's security, to bolster America's economic prosperity, and to promote democracy and human rights abroad."³⁵

"National interests are a nation's perceived needs and aspirations largely in relation to the external environment. Hence, U.S. national interests determine our involvement in the rest of the world, provide the focus of our actions to assure their protection, and thus, are the starting point for defining national security objectives and then formulating national security policy and strategy." The United States has four basic, relatively unchanging, national interests, and all of its interests can be fitted into these four categories: defense, trade and commerce, the building of a stable world order, and the promotion of American values abroad. The national security strategy strives to accomplish or fulfil these enduring national interests. The military, as one element of national power, assists in the attainment of these long-term interests.

In very broad terms then, strategic risk may exist when the ends, ways, and means of the national security strategy do not properly support national interests. Strategic risk could also exist if the elements of national power were disproportional to the achievement of national security objectives. "The elements of national power can only be separated artificially. Together, they constitute the resources for the attainment of national objectives and goals." Any analysis of strategic risk then must include an evaluation of the overall application of all instruments of national power. (See Figure 4)

Since Congress tasked the Department of Defense to define the nature and magnitude of the strategic risk associated with executing the missions called for under the national defense strategy, congressional testimony can provide some insight into the strategic risk concept. In hearings concerning the National Defense Authorization Act of 1997 on 16 June 1997 testimony shows that, "The committee believes that the process of managing strategic risk must be shaped first and foremost by the risks of renewed great power rivalries." So from the Congress' point of view an aspect to be considered in strategic risk are major threats in the strategic environment.

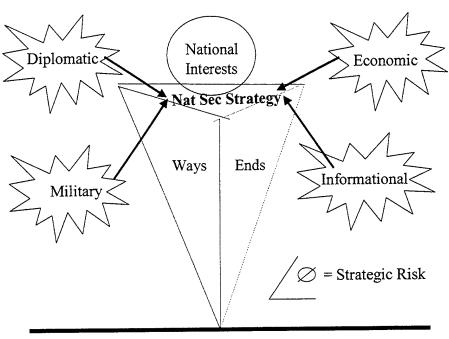


Figure 4 National Security Strategic Risk Relationship

Other aspects of strategic risk also recorded during testimony concerning the National Defense Authorization Act of 1997 include the state of force readiness, morale (the quality of military life), and equipment modernization. The testimony states, "The projected real decline in future defense budgets, assumed in the QDR and ratified in the recent budget agreement, adds to the strategic risk. The pillars of a sound defense program: the maintenance of sufficient combat forces in a state of readiness necessary to execute the national military strategy, the guarantee of a decent quality of military life and an adequate program of equipment modernization to ensure for the future the advantage U.S. military force enjoys today."⁴⁰

Strategic risk must account for the relationship between national interests and the strategic environment. Based on these factors the military must maintain certain force capabilities. The military must also maintain a high level of readiness while pursuing a modernization program. These relationships all influence strategic risk and are depicted in Figure 5.

The national military objectives of promoting peace and prosperity and defeating adversaries are the military instrument of national power's contribution to attaining national interests and national security objectives. These two objectives by definition are also the ends of the national defense strategy. These ends together with the ways (shape, respond, prepare now) and means (military forces) make up the national defense strategy. The strategic environment over the short and long term influences national interests and the national defense

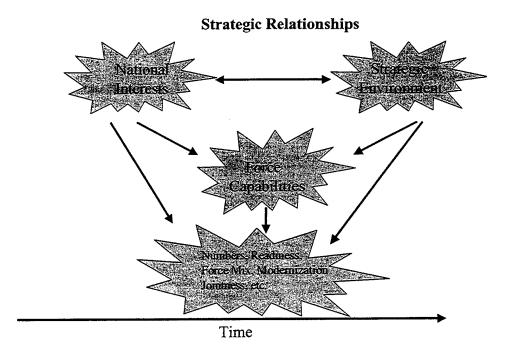


Figure 5 Strategic Relationships

strategy. Using the strategy model of this paper, strategic risk as it applies to the military instrument of national power is illustrated in Figure 6.



Figure 6 Strategic Risk and the Military Instrument of National Power

Strategic risk then also exists when there is a danger over time that the ends, ways, and means of the national defense strategy do not support national interests in the strategic environment. Strategic risk can be generated in a number of ways. Strategic risk can be generated if the strategy is not appropriate for or does not take into account changes in the strategic environment. Strategic risk may also be generated when the ends, ways, or means of the national defense strategy are not properly prioritized, resourced, and/or synchronized in order to effectively and efficiently support the overall strategy and therefore the national interests. This imbalance may occur "at the seams" between the three elements of the strategy or may occur internal within a single element of the strategy. In some cases the imbalance between ends, ways, and means may not create risk but can create inefficiencies. Therefore, the focus may have to be what impact a change in one element or between elements has on the other elements.

In summary, from a military perspective strategic risk must be evaluated on two levels. First, the military instrument of national power must be assessed as an element of national power in support of the overall national security strategy. Second, military capabilities must be analyzed to ensure the proper relationships exist between the elements of the national defense strategy.

POLITICAL RISK

Unlike strategic risk, the meaning of political risk as it relates to the QDR is not hinted at in congressional testimony. Political risk, like strategic risk, is also not defined by the Department of Defense dictionary. Political is defined by Merriam-Webster as, "of or relating to government." Governments exist both within and outside the United States. Therefore, political risk has a domestic as well as an international component. For example, domestic political risk could exist for an administration if the defense budget was too high or too low in proportion to the other domestic needs of the country. Domestic political risk is not assessed in this paper. The focus here is on political risk as it relates to U.S. foreign policy objectives.

The definition of the strategic level of war hints at one external political aspect. This definition states, "the level of war at which a nation, often as a member of a group of nations, determines national and multinational (alliance and coalition) security objectives and guidance...⁴² Thus, a key aspect to be considered in the political risk definition is unilateral versus multilateral action because in the final analysis, "military force may be employed either unilaterally or in concert with other nations."⁴³ The importance of multilateral action is highlighted in our current national security strategy document: "for the foreseeable future, the United States, preferably in concert with allies, must have the capability to deter and, if deterrence fails, defeat

large-scale, cross border aggression."⁴⁴ Allies are an area where political aspects of strategy interface with the military aspects because, "each alliance is first and foremost a political association."⁴⁵

The Department of Defense has long exercised a role in diplomacy and the Goldwater-Nichols Act of 1986 strengthened the role of the military. The principal military players in diplomacy are, "the Joint Staff's Director for Strategic Plans and Policy (J-5) and the regional unified military commands, headed by regional commanders-in-chief (CINCs), who exercise active command of military forces deployed outside the United States and who are therefore in regular contact with foreign governments and forces on matters ranging from coalition formation to the provision of military technical assistance and the coordination of contingency war-fighting plans."

The 1997 Report of the Quadrennial Defense Review comments on the relationship between the military and political instruments of national power when it states, "Diplomacy is a critical force multiplier when the United States seeks and works with coalition partners and requires access to foreign bases and facilities." As stated in the national security strategy document, "we act in alliance or partnership when others share our interests, but unilaterally when compelling national interest so demand" and "we act in concert with the international community whenever possible."

Political risk includes the danger of having to attain national military objectives through unilateral military action. Political risk also exists when a country enters into an alliance and must act in support of allies to fulfill treaty obligations. It impacts on the relationships between and among states and non-state actors and includes implications for declaratory policy as well as strategic and conventional deterrence. Political risk is a component of strategic risk and has implications for each element of the national defense strategy-shaping, responding, and preparing, especially as it applies to the means.

Political risk relationships are depicted in Figure 7 where national interests are balanced on a national defense strategy that is kept in equilibrium through the proper application of political ends, ways, and means as they all relate to the strategic environment. Political risk is greater when the military must act unilaterally or when having to act in support of allies in circumstances where this action does not support national interests. Political risk is minimized when the proper application of military power is used to attain national interests. This application may entail unilateral action, action in concert with allies, or action with coalition partners.

Political risk must be considered as it applies to each element of the national defense strategy. Shaping, responding, and preparing now all have political considerations. These

considerations must be maintained in a balanced relationship that does not upset the overall equilibrium of the national defense strategy. Some key considerations include for example, correct prioritization of the regions of the world for resource allocation and the attainment of the proper degree of interoperability with allies and/or coalition partners.

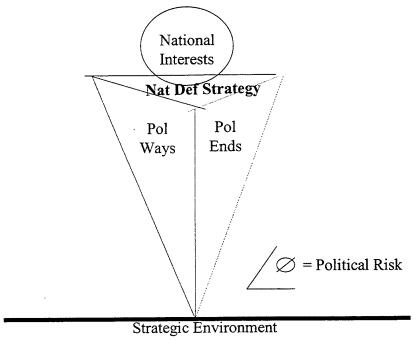


Figure 7 Political Risk Relationships

MILITARY RISK

The Department of Defense dictionary does not define military risk, like strategic and political risk. The Merriam-Webster Dictionary defines military as, "of or relating to soldiers, arms, or war." Unlike political risk, the meaning of military risk is relatively spelled out in congressional testimony. Essentially, military risk encompasses the danger of not being able to carry out directed warfighting and engagement missions in the timelines and manner required. For the armed forces of the U.S. these missions are directed in the Joint Strategic Capabilities Plan (JSCP) with the feedback mechanism to Congress being the Joint Military Readiness Review (JMRR). Military risk therefore, has a relatively robust assessment process which Congress and the military are both comfortable with. However, this assessment process does possess the gaps discussed below.

Military risk, like political risk, is a component of strategic risk. Military risk is the easiest of the three risk categories to understand and quantify. Because of this when the Joint Chiefs of

Staff testify before Congress they normally discuss military risk in terms of the ability to conduct two nearly simultaneous major theater wars. While the Chiefs are talking about a capability to conduct the most demanding "mission" for the military, the capability available to do so is quantified in the JSCP, and thus military risk is the type of risk most often discussed.

While the current military risk assessment process is good, it is not flawless. Military ways consist of shaping, responding, and preparing now for an uncertain future. The JSCP, however, only calls for shaping and responding missions, with shaping missions recently added. There exists the need for a mechanism to ensure preparing missions are evaluated in the national defense strategy. While this is problematic due to different time frames involved (JSCP current force vs. Future Years Defense Program (FYDP) force) all components of the strategy must be evaluated simultaneously in relation to each other to attain a true risk picture.

A second flaw with the current military risk assessment system is the assumption that all missions are lesser-included scenarios to the two nearly simultaneous major theater wars. While this logic is acceptable in most cases, there are instances where this may not be the case. An example of this was Operation Allied Force, the campaign in Kosovo where the Air Force stated they used resources equal to those that would be used in an MTW. To attain the greatest magnitude of military risk a number of other Small Scale Contingency (SSC) missions may also have to be evaluated either by themselves or in conjunction with MTWs.

The third flaw with the current assessment of military risk is the assumption that forces are expected to be available at the beginning of the plans effective period in conjunction with open-ended SSCs. While the current policy states that forces would be redeployed from SSCs to take part in MTWs, a period of time might need to be allocated for unit train-up to MTW standards after a lengthy non-MTW related SSC.

Figure 8 shows the relationships between the ends, ways, means, and military risk. Military risk exists when the ends, ways and/or means do not support the national defense strategy in a manner to accomplish national interests. Military risk exists when the military cannot accomplish the warfighting and engagement missions in the timelines and manner called for in the JSCP. Military risk also exists if the armed forces are not preparing for an uncertain future. A greater degree of military risk exists if there is an improper proportion of resources applied to shaping, responding, and preparing now tasks. Military risk in this respect may be cumulative over time. Friction, as earlier discussed, must also be accounted for as part of military risk. Friction must be overcome by additional means and/or ways to attain objectives or ends. Military risk would also exist if the national military strategy did not properly account for all the missions dictated by the strategic environment.

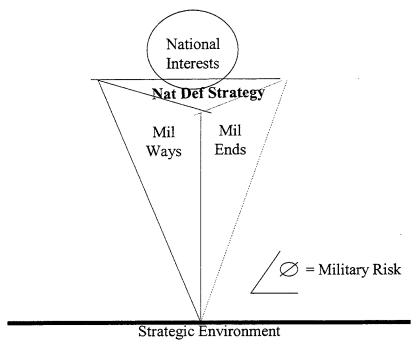


Figure 8 Military Risk Relationships

THE CURRENT RISK MAGNITUDE MEASUREMENTS

Admiral Clark, current Chief of Naval Operations (CNO), in his testimony before the House's Committee on Armed Services on 27 September 2000 was enlightening. He stated,

"I fall back to the two MTW strategy and I believe that that is the most demanding and oppressing that we might face...first MTW is at moderate risk...The second one and the high risk part of it, it is high and the details—I think what is a challenge for when I talk to groups and people about it is the definition of high. What does high mean? And it means it's going to be difficult, it's going to be a great challenge, but you know, in the heritage of the history of the armed forces our people are going to respond when called. And we have made the judgement that we can take on that challenge but the risk is significant." ⁵¹

Admiral Clark's testimony highlights several factors about risk. First, risk is normally only discussed in relationship to the military's ability to conduct two nearly simultaneous MTWs. However, regional CINCs also discuss theater risk in relation to only one MTW.

Second, the two nearly simultaneous MTW scenario is considered the military's most demanding under the current strategy and as such should be the benchmark against which risk should be measured. "History shows that preparing for the worst case was wise then, and is prudent now." It is believed that if the military can cope with this situation then it can handle all lesser scenarios. The problems with this assumption were discussed earlier.

Third, Admiral Clark mentions moderate and high as part of a scale to measure risk. These are two of the current four measurements. The four measurements are discussed in testimony between Representative Roscoe Bartlett (R-MD) and GEN Shelton, Chairman JCS:

Rep. Bartlett: "How many levels of risk are there when you're defining risk relative to a war, to readiness?"

GEN Shelton: "We've got no risk, low risk, moderate risk and high risk."

Rep. Bartlett: "Now I understand also that this risk is a euphemism for saying that the

less ready we are the more of our young people get killed. Is that not correct?"

GEN Shelton: "That is correct."

Rep. Bartlett: "Okay."

GEN Shelton: "It also can equate to terrain lost, lives lost, et cetera."

Rep. Bartlett: "Of course, equipment lost and --?"

GEN Shelton: "Yes sir."53

In discussions between Representative Hunter (R-UT) and Admiral Clark about the change in risk for the second MTW between 1992 and today Rep Hunter stated, "so it's higher in the second, but—it's still substantial in the second even in 1991, but higher today. The risk is higher today in the second MTW."⁵⁴ This conversation shows how the measurement of high is losing its ability to be an accurate measurement for the magnitude of risk. It highlights Admiral Clark's testimony where he asks what does high really mean.

In other testimony, "the Department of Defense reported that the risk in executing ongoing operations and responding to a major theater war is moderate, while the risk for a second is high. There are some people who think that it wouldn't just be high; the second one would be impossible to carry out because of what has been done to the military from a readiness standpoint."⁵⁵ So risk has been described variously as being "low," "moderate," "high," "significant," "unacceptable," and in other testimony as "tremendous."

Congressional testimony points out three problems with the current risk measurement techniques and criteria. First, the risk scale does not provide enough data points to properly describe the magnitude of risk. Second, what each of these measurements really means is undefined because they are measured against no defined criteria. Third, risk, as a concept is normally only discussed in context of the two MTW scenario, a specific case in the responding element of the overall defense strategy.

RISK ASSESSMENT OPTIONS

Certain methods to assess risk are codified in law. The first of these deals with the national security strategy. In section 108 of the National Security Act of 1947 (50 U.S.C. 404a) as amended, "the adequacy of the capabilities of the United States to carry out the national security strategy of the United States, including an evaluation of the balance among the

capabilities of all elements of national power of the United States to support the implementation of the national security strategy."⁵⁶ is directed. This law directs that the adequacy of the capability of the military element of national power be evaluated in relation to the other elements of national power as they all relate to national security strategy.

In Title 50, Chapter 15, Subchapter I, Sec 402 the National Security Council is directed "to assess and appraise the objectives, commitments, and risks of the United States in relation to our actual and potential military power, in the interest of national security, for the purpose of making recommendations to the President…"⁵⁷

Department of Defense Directive Number 5111.9 dated 22 March 1995 directs that net assessments be conducted. A net assessment is, "The comparative analysis of military, technological, political, economic, and other factors governing the relative military capability of nations." Title 10, Subtitle A, Part I, Chapter 5, Sec 153 directs the Chairman of the JCS to, "perform net assessments to determine the capabilities of the armed forces of the United States and its allies as compared with those of their potential adversaries." These assessments more closely relate to threat based assessments, where the difference between U.S. and adversary capabilities would represent risk.

In Title 10 the Chairman is also directed to:

"advise the Secretary on critical deficiencies and strengths in force capabilities (including manpower, logistic, and mobility support) identified during the preparation and review of contingency plans and assess the effect of such deficiencies and strengths on meeting national security objectives and policy and on strategic plans."

(c) "Risks under National Military Strategy. – (1) Not later than January 1 each year, the Chairman shall submit to the Secretary of Defense a report providing the Chairman's assessment of the nature and magnitude of the strategic and military risks associated with executing the missions called for under the current National Military Strategy.

(2) The Secretary shall forward the report received under paragraph (1) in any year, with the Secretary's comments thereon (if any), to Congress with the Secretary's next transmission to Congress of the annual Department of Defense budget justification materials in support of the Department of Defense component of the budget of the President submitted under section 1105 of title 31 for the next fiscal year. If the Chairman's assessment in such report in any year is that risk associated with executing the missions called for under the National Military Strategy is significant, the Secretary shall include with the report as submitted to Congress the Secretary's plan for mitigating that risk."60

The Chairman fulfils part of his Title 10 responsibilities of comparing the defense capabilities and programs of the Armed Forces of the United States and multinational forces to those of their potential adversaries by the Joint Net Assessment (JNA) process and CJCS program assessment. (JP 0-2, 5-0, (JP 3-0))⁶¹ The JNA process is new to the JSPS. The JNA

process assesses current capabilities of US forces and allies and compares them with the capabilities of potential adversaries. The JNA process is triggered in one of two ways:

Quadrennial assessments and need based on military judgement/external drivers. As a minimum, the JNA process develops a net assessment every four years. This net assessment, based on the risk evaluation force (a force structure built on CINC and Service recommendations and designed to have a reasonable assurance of success in accomplishing the full range of military operations that support NMS objectives), projects US and allied capabilities available at the end of the FYDP against those capabilities what would reasonably be available to potential adversaries. In the event of significant changes in the national security environment, emerging threats, or at the direction of the NCA, the JNA process assesses the capabilities of the current force structure and compares them to the capabilities of potential adversaries.

"The JNA process provides a strategic-level risk assessment and provides the basis for developing risk associated with alternative force structures and strategies." The Joint Net Assessment process does not produce a separate document.

The Joint Strategy Review (JSR) process also provides strategic assessments. "The JSR produces the following two types of products: the JSR Annual Report (if a course of action is recommended, the Chairman's endorsement of the COA constitutes the Chairman's Guidance) and JSR issue papers.

The Chairman also has the task of issuing strategic planning guidance or providing guidance on goals and objectives, resources, and planning tasks to Service staffs, Service major commands, and combatant command planners. This is accomplished through the Joint Planning Document (JPD). This task also includes providing guidance for developing recommendations for the national military strategy. It further includes providing guidance for Service forces to ensure they support multinational and theater strategies and campaigns in conformance with DOD, CJCS, and contingency planning guidance. Guidance may include targeting priority, rules of engagement, levels of acceptable risks, and other restrictions and constraints. (JP 1, 0-2, 3-0, 5-0 (JP 1-02))⁶⁴

The Chairman's Program Recommendation (CPR) provides specific, personal CJCS advice on programs and alternative budget proposals directly to the Secretary of Defense. The Secretary of Defense uses the CPR to finalize Defense Planning Guidance (DPG) programming guidance. The Chairman's Program Assessment (CPA) provides the Secretary of Defense with the CJCS assessment of Service and Defense agency Program Objective Memoranda (POM) compliance with the DPG. The document also recommends specific alternative program and

budget proposals based on the CJCS assessment of current and future joint warfighting requirements.⁶⁵

One would think that the risk to the nation would be greatly detailed with all these processes and assessments, which are directed by law. However, this is not the case. The National Security Strategy document does not currently do a very good job of addressing the adequacy of the capability of the U.S. to carry out the national security strategy. In research for this paper a risk assessment report conducted by the National Security Council could not be located. While net assessments are directed to be conducted in the Department of Defense and by the Chairman, those reports that were located did little to assess risk. The Joint Strategy Review has produced no published documents, which can be located that specifically address risk in any detail as it applies to the national defense strategy. Apparently, the only way in which risk is currently assessed is through the Chairman's Readiness System.

THE CURRENT RISK ASSESSMENT METHOD

This system is also codified in law, specifically Title 10 US Code Sec 117 which directs, "measure on a monthly basis, the level of current risk based upon the readiness reporting system relative to the capability of forces to carry out their wartime mission."66 This system, known as the Joint Military Readiness Review (JMRR), was required by the 1996 Defense Authorization Act, and provides a report to Congress on a quarterly basis. The system, "is oriented towards a current assessment of the military's readiness to fight and to meet the demands of the full range of the missions suggested in the NMS. The focus is on near-term operational issues, not the mid and long-term requirements processes or modernization. Longterm readiness and modernization issues are addressed via the Service POM submissions, Joint Warfighting Capabilities Assessment (JWCA) process, and by the Joint Requirements Oversight Council (JROC)."67 The JMRR evaluates the military's ability to execute MTW or SSC scenarios. Deficiencies are grouped into key risk elements, which are further aggregated into strategic concerns. These "drive risk to the NMS" and quantify the way risk is currently reported to Congress. Congress receives risk assessments based on the military's ability to conduct MTWs where currently the "second MTW risk is high. The CJCS specifies what drives that risk to high in the classified annex report to Congress."69 So risk, as it's currently reported to Congress, is presented in terms of risk in the ability to conduct MTWs or SSCs, which are considered the lesser-included missions. Risk, as reported to Congress, is near-term risk as it relates to the responding element of the national defense strategy.

"In discussing our requirements, I prefer to use the words national security rather than defense, as the latter term implies a rather restricted reason for our investment. To defend ourselves is a requirement, to me a subset of our articulation of national security requirements. I prefer a broader characterization of what we are here to discuss. Readiness of U.S. military forces to do what is a fair question. In my view, we invest in national security to both assure and ensure that our interests, as well as those of our friends and allies, are protected and advanced throughout the world. Implicit in this investment is the assurance of military victory wherever the nation chooses to use its armed forces as an instrument to achieve our national objectives. We do not invest solely to be able to defeat an enemy, either known or unknown to us at present. Our investment is also in what our uniformed men and women do each day throughout the world that more than anything else makes such a big difference in the lives of our citizens and the destiny of the nation. This is a gift of those who preceded us in the 20th century, and we must not fail to embrace it. It is in fact, our legacy, their legacy. So in large measure we invest to pursue our national or engagement strategies, which provide the underpinnings of our global leadership responsibilities, and to prevail in a major conflict should one arise. The success of the former may preclude the latter from ever happening."70

"And that's why I try to make the distinction between using the word do we need more for defense or do we need more for national security. The word 'defense' implies the high-end military stakes: Are you going to get into a war, and are you going to win? That's certainly the most important thing. But 98-99 percent of our time is devoted to doing other things—training, presence, engagement, shaping—and those kinds of things are hard to quantify in the electorate, but they're fundamentally important."

These two statements from Gen Jones, the current Commandant of the Marine Corps, on 27 September 2000 to members of the House Armed Services Committee capture part of the essence of why the current way risk is measured is inadequate. As Gen Jones notes, there are other things the military does other than fighting and winning our nations wars, with his focus being on engagement or shaping. The rest of why the way risk is measured is inadequate is captured in the following statement, "In the context of trying to manage risk in an environment of constrained resources, the committee believes it is necessary to set modernization priorities that reflect strategic priorities." The other missing component of risk not properly captured at this time is the prepare now element of the national defense strategy.

CONCLUSIONS

Risk is a concept that is much talked about but which is ill defined and understood. There exists no approved Department of Defense definition for strategic, military, or political risk. The relationships between these three categories of risk and how they relate to the national defense strategy as well as the national security strategy must be described.

"The making of strategy has always been a process of managing risk. In a post-Cold War environment of shrinking military forces and constrained defense budgets, the imperative to

maintain strategic priorities grows while the margin for error gets smaller."⁷³ This statement from recent congressional testimony is so very true. If true and recognized, then why do we as a nation not maintain focus on strategic priorities and manage the risk associated with these priorities? There exist many processes at various levels within the government and the Department of Defense to capture this risk. The problem with these processes is that they exist at different levels, in different agencies and organizations, with different focuses, and none truly capture all the aspects of the elusive concept of risk in general, or strategic, military, and political risk specifically.

The risk scale that currently employs the categories of no risk, low, moderate or high does not provide the clarity to properly articulate the magnitude of risk associated with conducting the missions called for under the national defense strategy. The current scale has outlived its usefulness to differentiate between the risk levels. Risk that is still named the same but is recognized as significantly different when evaluated over time should not be called the same due to the confusion created.

RECOMMENDATIONS

The Army should propose that a joint system be established similar to the JMRR process where the Joint Staff, CINCs, and Services measure risk against specific criteria. If the magnitude of total risk is to be known, then risk must be measured as it relates to all the elements of the national defense strategy. Currently the military establishment adequately captures risk related to responding missions, especially responding to two MTWs. However, the military's articulation of the missions associated with shaping and preparing now risk leaves much to be desired. Risk related to shaping should be captured in the JMRR process as that system matures. Preparing now risk could be communicated in a more widely distributed CPR and CPA that includes a risk section.

The new system first must account for strategic risk. The JNA process provides for a strategic-level risk assessment, yet produces no document. The process should produce a report that captures strategic risk. Strategic risk exists when the relationship between the ends, ways, and means is not properly structured to accomplish national interests. Strategic risk should be measured against the elements of the strategy, shape-respond-prepare now. Strategic risk should be measured through the Doctrine, Organization, Training, Material, Leadership, People, and Facilities lens. This structure provides an established framework that is currently accepted within the Department of Defense.

A critical component of strategic risk is military risk. While the focus of strategic risk is on the ends, ways, means relationship; military risk is the danger of the military not being able to accomplish missions as prescribed in the JSCP in support of the national defense strategy. Stated another way, military risk focuses on ways and means to accomplish military ends. Currently the JMRR provides a good system to capture SSC and MTW risk. The JMRR framework should be expanded to capture CINC's Theater Engagement Plans (TEP) that were recently added to the JSCP as well as prepare now programs which currently are not part of the JSCP but are loosely prioritized in the JROC and IPL processes.

The other critical component of strategic risk is political risk. Political risk is created when the military must conduct any mission called for in the JSCP. Political risk is created when the U.S. acts unilaterally or in support of allies or coalition partners. Political risk must also measure the military's ability to work with other governmental and non-governmental agencies as well as international organizations. Political risk applies to the three elements of the defense strategy. Shaping criteria includes TEP adequacy, but also should include assessments on whether the U.S. is engaged adequately in all the regions of the world it needs to be. Responding criteria should include assessments of unilateral vs coalition, allied, interagency, and international organization operations. Preparing now focus should be on interoperability issues. Complete political risk assessments would require governmental interagency coordination and cooperation.

The second recommendation is that this in-depth risk assessment be conducted every four years in conjunction with the QDR or more often if the national security situation dictates. If the risk assessment is conducted as part of the QDR then it would become part of the strategy review. Risk should be evaluated in the past, near, mid, and long term where past is the last four years and evaluates how risk has evolved over the past administration. The near term assessment should measure risk from the present to six years in the future. This risk assessment is for the POM. Mid term should assess risk from six through sixteen years or the POM plus ten years. Long term should assess risk from sixteen to twenty-five years in the future to include the future strategic environment and long-term concepts. These three time frames are consistent with TAP but could be adjusted to better-fit Department of Defense planning timelines. However, a past, near, mid, and long term evaluation should be conducted. While portions of this risk assessment could be conducted on a more frequent basis as required by the national security situation, the complete assessment should occur only in conjunction with the QDR due to time and other resource considerations.

The third and final recommendation is that the scale of no, low, moderate, and high risk be modified as well as expanded to also include negligible and perilous risk while dropping no risk. These new two additional data points are essential to add clarity to the risk assessment.

Negligible risk provides a data point to capture risk that is less than low. Perilous risk provides a data point to capture risk which is greater than high. These five data points would provide the necessary range to properly access risk. I disagree with GEN Shelton who said the scale begins with no risk. There will always be some risk, no matter how small, particularly if one agrees with Clausewitz. The other measurement that has been used in the past few months to articulate a higher than high level of risk is unacceptable. While unacceptable risk captures the fact that risk is greater than high, it also means that risk is so high that some action must be taken immediately to lower risk. Unacceptable is a temporary state. Once an unacceptable level of risk is attained, it must be by definition immediately acted upon. Perilous better captures the essence of the level of risk that is trying to be articulated. Perilous is synonymous with extremely dangerous, which is the more accurate term. Also, it is quite possible that moderate risk could be unacceptable if the national interests at stake are low.

Figure 9 depicts a theoretical bell shaped curve where risk data points would fall based on a normal distribution. This curve provides a model that should be used as a gauge to evaluate risk. Resources should be applied to lower risk in any situation or scenario where the risk magnitude is initially computed as greater than high.

Risk Matrix

Overall		Past		Near			Mid			Long			
		Str	Mil	Pol	Str	Mil	Pol	Str	Mil	Pol	Str	Mil	Pol
	Shape												
	Respond												
	Prepare												

Str=Strategic Mil=Military Pol=Political

Negligible Low Moderate High Perilous

Risk Magnitude Scale

In-depth risk assessment conducted as part of each QDR

Figure 9. Risk Matrix

Recommendations are summarized in a matrix format at Figure 9. Risk is a concept that has not been properly analyzed, defined, and articulated within the defense community. Risk should be measured against the entire national defense strategy and this assessment should include its strategic as well as its political and military aspects. Strategic risk has two aspects that must be evaluated. First, the military instrument of national power must be analyzed as an element of overall national power in support of the national security strategy. Second, the military instrument of national power must be analyzed to ensure the proper relationships exist between the elements in support of the national defense strategy. All elements of the strategy; shaping, responding, and preparing now must be evaluated over time to understand how dynamic a concept risk is. The proper balance between present, near, and long-term requirements must be balanced. We cannot afford to mortgage the future in order to meet day-to-day requirements. As a nation, we need to better articulate and measure risk. It is a concept, which must be defined and understood as it relates to the entire national security structure if this nation is to maintain a superpower status as we move into the twenty-first century.

word count = 9843

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⁴⁶Public Domain, "Diplomacy" in <u>Readings in War, National Policy, and Strategy</u>, Vol I, U.S. Army War College, Department of National Security and Strategy (Carlisle Barracks: U.S. Army War College, 2000), 352.

⁴⁷William S. Cohen, <u>Report of the Quadrennial Defense Review</u>, (Washington D.C.: U.S. Government Printing Office, 1997), 9.

⁴⁸Bill Clinton, <u>A National Security Strategy for a New Century (Washington D.C.: U.S. Government Printing Office, 1999)</u>, 14 and 19-20.

⁴⁹Henry B. Woolf, ed., <u>The Merriam-Webster Dictionary</u> (New York: Pocket Books, 1974), 444.

⁵⁰Friction is countless minor incidents, the kind one can never really foresee, that combine to lower the general level of performance, so that you always fall short of the intended objective. This concept is from Clausewitz's On War, first introduced in this paper in the section on risk.

⁵¹Congress, House of Representatives, Committee on Armed Services, Testimony on Military Requirements, 106th Cong., 2d Sess., 27 September 2000, available from http://www.nexis.com/research/search/documentDisplay? docnum=1&anset=GeHauKO-EWERMs0/O2/2000; Internet, assessed 30 Sep 2000.

⁵²lbid.

⁵³ lbid.

⁵⁴lbid.

55 lbid.

⁵⁶U.S. Code, Title 50, sec 404a (1994).

⁵⁷U.S. Code, Title 50, sec 402 (1994).

⁵⁸Department of Defense Directive 5111.9, available from http://web7.whs.osd.mil/text/d5119p.txt; Internet, assessed 19 Sep 2000.

⁵⁹U.S. Code, Title 10, sec 113 (1994).

⁶⁰U.S. Code, Title 10, sec 153 (1994).

⁶¹Strategic Level – National Military Tasks, available from http://gcss.jsj4.com/gcssoa/html/sn<u>5.html;</u> Internet, assessed 19 Sep 2000.

⁶²Summary of Changes to the Joint Strategic Planning System, available from http://www.cgsc.army.mil/djco/NEWJSPS.HTM; Internet, assessed 19 Sep 2000.

⁶³Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 3100.01A dated 1 Sep 1999, page E-5. ⁶⁴Strategic Level – National Military Tasks, available from http://gcss.jsj4.com/gcssoa/html/sn5.html; Internet, assessed 19 Sep 2000.

⁶⁵Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 3100.01A dated 1 Sep 1999, page D-2 through D-3.

⁶⁶U.S. Code, Title 10, sec 117 (1994).

⁶⁷Chairman of the Joint Chiefs of Staff Instruction CJCSI 3401.01B dated 1 July 1999 in Course 3 Joint Processes and Landpower Development, Vol I, U.S. Army War College, (Carlisle Barracks: U.S. Army War College, 2000), 366.

⁶⁸lbid., 386.

⁶⁹Congress, House of Representatives, Committee on Armed Services, Testimony on Military Requirements, 106th Cong., 2d Sess., 27 September 2000, available from http://www.nexis.com/research/search/documentDisplay? docnum=1&anset=GeHauKO-EWERMs0/O2/2000; Internet, assessed 30 Sep 2000.

⁷⁰Congress, House of Representatives, Committee on Armed Services, Testimony on Military Requirements, 106th Cong., 2d Sess., 27 September 2000, available from http://www.nexis.com/research/search/documentDisplay? docnum=1&anset=GeHauKO-EWERMs0/O2/2000; Internet, assessed 30 Sep 2000.

⁷¹Congress, House of Representatives, Committee on Armed Services, Testimony on Military Requirements, 106th Cong., 2d Sess., 27 September 2000, available from http://www.nexis.com/research/search/documentDisplay? docnum=1&anset=GeHauKO-EWERMs0/O2/2000; Internet, assessed 30 Sep 2000.

⁷²Congress, House of Representatives, Committee on National Security, National Defense Authorization Act for Fiscal Year 1998, 105th Cong., 1st Sess., 16 Jun 1997, available from http://www.house.gov/hasc/billsandreports/105thcongress/hr1119hrpt.txt; Internet, assessed 28 Sep 2000.

⁷³Congress, House of Representatives, Committee on National Security, National Defense Authorization Act for Fiscal Year 1998, 105th Cong., 1st Sess., 16 Jun 1997, available from http://www.house.gov/hasc/billsandreports/105thcongress/hr1119hrpt.txt; Internet, assessed 28 Sep 2000.

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<u>Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 3100.01A</u> dated 1 Sep 1999, page E-5.

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